

Child Survival CONNECTIONS

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Successes, Innovations, and Promising Practices from Projects Around the World

Photograph by Michael Bisceglie



A young boy and his aunt in Vietnam. Research is essential in discovering what influences caregiving behavior in each project area. Factors which are highly influential to caregivers in one area may not be highly influential in another.

Influences on Health Behavior

What influences people to make decisions? Why do some people practice healthy behaviors while others do not? Is there any way to find out? Once you have an idea of who or what influences behavior, what can you do to test your ideas? This issue of *CS Connections* features two examples; one article focuses on research into factors influencing behaviors, while the other article focuses on project strategies once one of the factors was identified.

Kirk Dearden, et al. discuss how the LINKAGES project and Save the Children conducted research in Vietnam to identify influences on four behaviors contributing to good nutritional status in children. The article by Judi Aubel picks up where the other article leaves off, and discusses an approach the Christian Children's Fund took in Senegal when research revealed one of the prominent influences of behavior to be older, respected "grandmother" figures in the community.

One of the themes running through both articles is the need for research to identify the influences of behavior in the project area. In the Vietnamese setting, mothers-in-law were found to be much more likely not to give any advice at all than to give "bad" advice. In Senegal, however, research revealed that mothers-in-law were large influencers of caregiver behavior.

Who or what influences behavior in your project areas? Only research will reveal this. As Kirk Dearden states in the article, "By discovering how those who practice ideal behaviors are different from those who do not, programs can more effectively bring about positive behavior change."

Article Summaries:

Using elicitation to learn from parents of young children in Vietnam

Elicitation is a technique for determining influences of health behavior. Findings from elicitation can be used to inform programming, specifically around what most influences behavior, challenging misconceptions, and developing appropriate messages. This article discusses Save the Children's experience using elicitation to learn what influenced parent behaviors in a rural northern province in Vietnam.

Strengthening the role of grandmother networks in promoting child health

The Christian Children's Fund child survival project in Senegal aimed to change community norms by working with grandmothers. The strategy involves group discussions with grandmothers and reinforcement of the nutrition topics in family and community-level discussions. Followup research suggests that the strategy has had a significant and positive effect on grandmothers' attitudes and advice, and that younger women have changed their practices as a consequence.

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What Influences Health Behavior?

Using Elicitation to Learn from Parents of Young Children in Vietnam



Photograph by Judge Bentley Kassel

Mothers and their children attend a Hearth session in Vietnam. Save the Children used elicitation (a type of formative research) to understand what is different about parents who practice ideal behaviors from parents who do not.

Introduction

We know which behaviors contribute to good nutritional status in children. However, we don't always know why some parents practice behaviors (such as feeding frequently) while others do not. We carried out this qualitative research to understand what is different about parents who practice ideal behaviors and parents who do not. By discovering how those who practice ideal behaviors are different from others, programs can more effectively bring about positive behavior change. We used "elicitation" to understand what influences nutrition behaviors. Elicitation is a type of formative research. It uses semistructured questions to help identify and understand behavioral determinants. In addition to our work on nutrition in Vietnam, elicitation has

also been used to examine other health behaviors, including condom use by young adults in the United States (Middlestadt, Bhattacharyya, Rosenbaum, Fishbein, and Shepherd, 1996).

Behavior Change Theories

There are many theories about what influences behavior (see the references at the end of this article). While there are some differences among these theories, many of them stress the importance of beliefs and attitudes about the behavior itself; what others think about practicing the behavior (often called "norms"); and the individual's perception that he or she can perform the behavior, even when there are difficulties (often called "self-efficacy"). If, for example, parents have a positive attitude

toward initiating breastfeeding in the first hour after birth, if they feel that immediate breastfeeding will result in something good, and if they have family, friends, and other close associates who are in favor of early initiation of breastfeeding, then mothers are more likely to put the baby to the breast in the first hour of life.

Program Background

Since 1990, Save the Children Federation/US (SC) has conducted Positive Deviance programming reaching more than 2,300,000 individuals in Vietnam. Program monitoring data show a reduction of severe childhood malnutrition by approximately 75 percent “Positive Deviants” are resource-poor, well-nourished children. SC rehabilitates malnourished children by learning what the parents of positive deviant children do to keep their children well-nourished and by sharing

what they have learned with caregivers of poorly nourished children.

Methods

We conducted a survey in a rural northern province in Vietnam before Save the Children began implementing its Positive Deviance approach to rehabilitating malnourished children. In each of five communities, we used rosters of all the parents of children six to < 18 months old to randomly select 20 parents, for a total sample size of 100. We usually interviewed mothers (93/100 respondents), but we also interviewed a father and six grandmothers when they were the primary caregivers.

We chose to study four positive deviant behaviors that have been identified as important during Save the Children’s work.

To determine:	We asked:
Beliefs and Attitudes and Perceived Advantages and Disadvantages	<ul style="list-style-type: none"> • What do you see as the good things that would happen if you continued to give your child foods and liquids as usual when he or she has diarrhea? • What do you see as the bad things?
Social Norms	<ul style="list-style-type: none"> • Who gives you advice about giving your child foods and liquids as usual if your child has diarrhea? Who else give you advice? • Could you tell us what their advice was (regarding whether you should give your child the same amount or more/should not give the same amount or more)? • If their advice was to give the same amount or more, was that advice very strong, strong, or somewhat strong? • If their advice was not to give the same amount or more, was that advice very strong, strong, or somewhat strong?
Facilitators and Barriers	<ul style="list-style-type: none"> • What makes it easy to continue to give your child foods and liquids when he or she has diarrhea? • What makes it difficult?
Self-efficacy	<ul style="list-style-type: none"> • How able are you to continue feeding your child the same amount or more foods and liquids even when you are faced with difficulties?¹

¹ In a previous question, we asked parents what made it difficult to feed the child as much or more during diarrhea. When interviewers asked parents how capable they felt to feed as much or more during diarrhea, interviewers gave specific difficulties parents mentioned in the previous question. For example, if a mother said that her mother-in-law didn’t like her giving as much or more foods and liquids during diarrhea, we asked, “How able are you to continue feeding your child the same amount or more foods and liquids even when your mother-in-law disapproves?”

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A positive deviant behavior is usually practiced by a few individuals in the community and contributes to the health of the child. We excluded common behaviors such as immunization (most children in Vietnam are immunized). Definitions for the four positive deviant behaviors were:

Feeds child positive deviant foods. At least two to three times a week, parents feed their

child at least one nutritious food that neighbors sometimes or almost never feed their children.

Feeds child during diarrheal episodes parents continue to give their child the same amount or more foods and liquids when the child has diarrhea (three or more loose or watery stools in the last 24 hours).

Washes child's hands. Parents wash the child's hands with water before every meal.

How to Simplify the Process

Staff from non-governmental organizations or private voluntary organizations and other institutions can simplify the process described on the following page by:

1. Reducing the sample size

It is possible to have a purposive, convenience sample of individuals (staff select individuals with certain characteristics who are easy to reach). This type of sample makes it difficult to use findings to describe a larger population, but it can provide important insights into why people behave the way they do. At a minimum, 20 doers and 20 non-doers of each behavior of interest should be included in the purposive sample.

2. Identifying doers and non-doers using a procedure other than randomization of individuals from rosters

NGO/PVO staff should consider alternatives to identifying doers and non-doers through complete rosters and randomization. For example, some NGOs/PVOs may already have information systems in place indicating who practices what behaviors.

3. Using a 5-point scale instead of a 7-point scale

Instead of using a 7-point scale to measure self-efficacy (very sure I am able to practice the behavior, sure I am able to practice the behavior, somewhat sure, neutral, somewhat unsure, unsure, and very unsure I am able to practice the behavior), staff should consider using a 5-point scale (sure, somewhat sure, neutral, somewhat unsure, unsure).

4. Conducting research with existing NGO/PVO staff

Conducting research without the help of outside experts can help reduce costs and the amount of time needed to carry out elicitation procedures.

5. Shortening the questionnaire and interviewer training

Questionnaires can be as short as the 9 questions specified in the table above, along with a few questions to determine whether an individual is practicing the behavior (a doer) or not (a non-doer). A few questions can be added to learn about the respondent's education, family size, and so forth. Shortening the questionnaire also reduces the amount of time needed to train interviewers.

6. Keeping data management and analysis in the native language

Keeping data management and analysis in the native language reduces the need to translate information, which often takes a considerable amount of time.

7. Using one software package to enter, clean, and analyze data

If responses to questions are short, EpiInfo or Excel (rather than both) can be used to manage and analyze data. If responses are longer, software for qualitative analyses such as Nud*It/Nvivo can be used.

Table I

Behavior	Favorable beliefs and attitudes	Positive social norms	Many facilitators and few barriers	High self-efficacy
Feeds child positive deviant foods	X	X	X	X
Feeds child during diarrheal episodes	X		X	
Washing child's hands		X	X	X
Takes child to health center when ill	X	X		X

Takes child to health center when ill.

Parents take the child to the health center when the child is ill.

In the survey, we also included open-ended questions about parents' beliefs and attitudes related to the behaviors, what parents saw as the advantages and disadvantages of practicing each behavior, what others thought about practicing the behaviors, things that made it easy or difficult for the parents to practice the behaviors, and parents' thoughts about their own ability to practice the behaviors. The questions we used for feeding during diarrhea are given below. We asked similar questions for giving positive deviant foods, washing the child's hands and taking the sick child to the health center.

We collected routine sociodemographic information such as the relationship between respondent and child; respondent's age; the number of living children respondent has; child's date of birth; respondent's education; the family's economic situation (as determined by interviewer); and whether the female respondent was living with husband's parents.

Sociodemographic information is especially helpful if program planners and implementers suspect that the reason people behave the way they do is partly because of sociodemographic differences such as the respondent's age, level

of formal education, and so on. We used sociodemographic information to see whether parents who practiced optimal behaviors were older, better educated, and had more experience raising children. In our sample, there were no sociodemographic differences between people who practiced each of the healthy behaviors we studied and people who did not.

Two Vietnamese consultants identified eligible mothers and their children. We selected five interviewers with previous experience conducting in-depth interviews and trained them for six days. We collected data for two weeks in September and October 1999.

We translated responses into English and entered all information word-for-word into EpiInfo. We also used Excel to sort, categorize and code information, depending on the type of response parents gave. We developed categories directly from parents' responses. We scored "social norms" on a 7-point scale ranging from 1 (very strong negative advice not to practice the behavior) to 7 (very strong positive advice to practice the behavior). We also scored "self-efficacy" on a 7-point scale ranging from "very sure I am unable to practice the behavior" to "very sure I am able to practice the behavior." (See related sidebar for ideas on how you can simplify these procedures.)

Photograph by Gary Shaye/Save the Children



Mothers feeding their children in Vietnam. Research in the program area showed that parents who fed their children positive deviant foods had more favorable beliefs and attitudes, social norms, and self-efficacy than parents who did not.

Results

We found that parents who fed their children positive deviant foods and who took their children to the health center when ill had more favorable beliefs and attitudes, social norms, and self-efficacy than parents who did not (see Table I, previous page). Parents who fed their children as much or more foods and liquids during diarrhea were also more likely to have positive, reinforcing beliefs and attitudes than parents who did not. However, for behaviors related to feeding during diarrheal episodes there were no differences with respect to social norms. Parents who washed children's hands felt more capable of washing hands before every meal and had family and friends who supported them; parents who did not wash children's hands did not feel as capable. Parents who practiced ideal behaviors were able to name many benefits of feeding positive deviant foods, taking children to the health center and feeding as much or more during diarrhea. Parents who did not practice ideal behaviors often had difficulty thinking of a

single advantage of doing so. We also found that fathers and in-laws were more likely not to advise mothers about infant feeding and health than they were to provide negative advice.

Discussion

Results from this type of qualitative research can be used in several ways: 1) results can guide the development of quantitative indicators, and 2) findings can inform strategies. Because the purpose of our applied research was to determine how positive deviance changes behaviors and outcomes, we used results from elicitation to develop quantitative indicators of beliefs and attitudes, norms and self-efficacy.

Using elicitation to develop quantitative indicators of what determines behavior

We developed questions about beliefs and attitudes, including the one below, to evaluate the strength of the parent's belief that practicing the behavior would lead to something good.

Feeding my child eggs once a day will help my child grow healthy fast.

Very likely ____:____:____:____:____:____ *Very unlikely*

We also developed two-part questions to quantitatively measure norms:

My mother-in-law thinks I

____ *should feed child the same amount when he or she has diarrhea.*

____ *should not feed child the same amount when he or she has diarrhea.*

When it comes to how much I feed the child when he or she has diarrhea, I

want to do ____:____:____:____:____:____ *do not want to do what my mother-in-law says.*

In our self-efficacy questions, we named a difficulty non-doers frequently said kept them from practicing a specific behavior (for example, lack of time). Then we asked how certain the parent was that she could practice the behavior in the face of that difficulty:

Parents in this area tell us that it is difficult to wash children's hands before every meal because parents and grandparents are busy. How able are you to wash your child's hands before every meal, even when you are busy with other work?

Very sure I am able ____:____:____:____:____:____ *Very sure I am unable*

In developing the questions, we used the same language doers had used to describe the consequences of practicing each behavior.

We used each of the questions above in a large quantitative study of Save the Children's Positive Deviance program in Vietnam to learn to what extent parents' behaviors are influenced by their own beliefs and attitudes about the advantages and disadvantages of practicing a behavior, norms and self-efficacy. We are now analyzing these quantitative data.

Quantitative indicators of beliefs and attitudes, norms, and self-efficacy can help program planners decide what most influences a particular behavior. Thus, for example, if a project hopes to improve feeding behaviors during diarrhea, results from our study suggest that at least in Vietnam, it would be less beneficial to try to improve the in-laws' support for giving as much or more foods and liquids during diarrhea. Parents who fed as much or more foods and liquids during diarrhea were only somewhat more likely to receive encouragement for doing so from family than parents who did not. On the other hand, because parents who felt positively about feeding as much or more during diarrhea were more likely to feed more,

programs might be more effective if they focused on improving parents' beliefs and attitudes about feeding a lot of foods and liquids during diarrheal episodes.

Using elicitation findings to inform programming

Elicitation provides a practical way to immediately use results to target and improve programming. Program planners and implementers can do this in several ways:

1. **Determine what most influences behavior.** For example, what distinguishes parents who take their child to the health center every time he or she is sick from parents who do not take their child to the health center? If, in fact, knowledge is the most important factor in distinguishing the two groups,² then much of the program intervention should focus on improving parents' recognition of children's symptoms, parents' awareness of health facilities, and so forth. If norms are the most important determinant of whether the child is taken to

² Knowledge could be collected using a Knowledge, Attitudes and Practices survey or by incorporating questions on knowledge into elicitation procedures

the doctor when ill, and most parents recognize children's symptoms, efforts to improve parents' knowledge will likely be fruitless. Activities to improve support from in-laws, friends, and neighbors would likely be far more beneficial.

2. Challenge misconceptions. Often, we make assumptions about what influences health behavior in a particular community. Applied research-including elicitation procedures-can be used to check those assumptions and to determine whether those assumptions are correct. For instance, based on experiences in other countries, we thought that husbands and in-laws might give mothers "bad" advice about various health behaviors. However, results from our research challenge that misconception. In fact, we found that husbands and in-laws were more likely not to advise mothers about infant feeding and health than they were to provide negative advice. In the context of Northern Vietnam, program efforts should focus on convincing husbands and in-laws to speak frequently to mothers about the importance of practicing healthy behaviors rather than discouraging husbands and in-laws from giving negative advice.

3. Develop specific messages, using parents' language. Parents told us that giving their children positive deviant foods was "good for the child's bones," "helped the child become healthy and intelligent," "allowed the child to play more," and "made the child look pink." These specific benefits can be used in the development of messages to convince other parents to give positive deviant foods. Additionally, parents' language can be used to address specific barriers to practicing optimal behaviors. For example, some parents mentioned that "it is difficult to digest [positive deviant foods such as eggs] if the child eats more than one egg a day." Messages and testimonials suggesting that children can digest such foods-even when they are given frequently-will help reassure parents that their children are capable of eating such foods without negative side effects.

LINKAGES has not yet had the opportunity to use the results directly; however, Save the Children is planning on using the results of this study to inform their program planning for Child Survival XVIII. Save the Children is using similar types of qualitative research to plan maternal and neo-natal health Behavior Change Communications strategies in Central Vietnam.

By discovering how those who practice ideal behaviors are different from those who do not, programs can more effectively bring about positive behavior change. ●

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Strengthening the role of grandmother networks in promoting child health



Photograph by Bill Leedom/CCF

The Christian Children's Fund developed a pilot health education strategy that aims to strengthen the role of grandmothers in promoting health and nutrition. One component of the strategy is a series of group meetings with grandmothers in each village. Each session involves the use of songs, stories without an ending, and group discussion.

Traditional health education (HE) strategies in maternal and child health (MCH) programs in Senegal, as in other African countries, almost exclusively involve women of reproductive age. Such strategies are based on the assumption that if these women understand the MCH practices recommended by the Ministry of Health (MOH,) they will automatically put such knowledge into practice. The results of many such programs have, however, been disappointing. In many cases, younger women have acquired new knowledge of optimal MCH practices regarding, for example, exclusive breastfeeding or maternal nutrition, but have not put the new ideas into practice.

In one child survival project in Senegal the Christian Children's Fund (CCF) decided to adopt an alternative approach to health education. Since 1998, CCF has been implementing the Community Action for Nutrition and Health (CANAH) project in

collaboration with the Ministry of Health in two districts in the Thies Region in Senegal.

A qualitative community study conducted in the communities supported by the CANAH project revealed that older, experienced women, or grandmothers, play a predominant role at the family level, both in health promotion and in illness management. The study showed that grandmothers serve as primary advisors on all health-related issues for both women of reproductive age and their husbands, that they supervise all MCH practices within the family sphere, and that they have considerable responsibility for directly caring for young children. Family members generally respect grandmothers and have confidence in them due to their age, their vast experience, their knowledge and their inherent commitment to teach and care for the younger generations.

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Formative Research on Household Decisionmaking and Influence

The role of grandmothers is often concealed due to biases in data collection methods. The methods used in the CANAH study were complementary to the commonly used knowledge-and-practice survey. A systems analysis identified the various household actors who influence decisionmaking and resource utilization related to health and nutrition issues and determining the roles played by each. Focus group interviews were conducted with community leaders, men, younger women, and grandmothers. The results of the interviews were triangulated to formulate conclusions about household roles and influence.

Based on the conclusions of the qualitative study, CANAH decided to develop a pilot health education strategy that aims to strengthen the role of grandmothers in promoting health and nutrition at the family

and community levels. More specifically, the objective of the pilot project is to encourage grandmothers to integrate a number of new ideas and practices related to maternal and child nutrition into their traditional practices.

Context

In the CANAH project area, diarrheal diseases have been identified as major causes of morbidity and mortality for children under-five (51 percent). Other causes of under-five deaths include acute respiratory infections (23 percent) and malaria (9 percent). Malnutrition forms a backdrop for all of these causes.

Breastfeeding is almost universal in the CANAH project area-the project baseline survey showed that 97 percent of mothers were breastfeeding their child less than 24 months of age. However, only 15 percent (three out of 20) children aged 0-4 months were exclusively breastfed. Fewer women (12 percent) had started breastfeeding their child within one hour after birth. The majority of women do

Recommendations for program managers based on lessons learned from CCF Senegal

- Given the role of grandmothers in promoting household and community health and well-being, grandmothers should be viewed as partners and their role should be strengthened in all community health and nutrition programs.
- In initial community assessments, the role of grandmothers needs to be analyzed and documented. This can best be done best through semi-structured interviews with community leaders and grandmothers themselves, rather than through structured questionnaires.
- Efforts to work with grandmothers should be supported by community leaders. For example, field workers need to involve community leaders in encouraging and supporting grandmother involvement.
- A first step to involving grandmothers is to establish rapport with them and acknowledge their experience in child survival. This can be done by acknowledging their existing role and experience. This can help to make them feel important and motivated to participate in MCH activities.
- The approach used by field staff to work with grandmothers must be based on listening and genuine respect for them.
- Educational activities with grandmothers should be based on a problem-solving approach and involve discussion of both traditional health-related practices and priority child survival practices promoted by the project or program. Traditional one-way message-dissemination approaches will not work with grandmothers.

give colostrum to their child, but there is a minority who considers it to be dirty and throw it away. Many mothers believe that milk is not produced right after childbirth, and there is a certain period of time before milk production begins. The majority of women wait 24 hours before starting to breastfeed.¹

One of the major health concerns in the project area is the early introduction of complementary foods. It is likely that the rate of diarrheal diseases observed in children under three months of age are largely due to this practice. Although many mothers continued breastfeeding the same as or more than usual when their child had diarrhea, only 24 percent gave foods the same as or more than usual during the diarrhoeal episode. Only 23 percent of children were receiving oral rehydration salts (ORS) or homemade solution. Very few (less than 10 percent) of mothers listed hand-washing behavior as a preventive measure against diarrhea.

The current practices on feeding infants vary greatly. Most women breastfeed their babies the first or second day after birth. They complement their breast milk with plain water, sugared water, and even other kinds of milk such as goat milk or canned milk. Babies are also fed porridge at a very early age (two to three months). The belief that underpins this practice is linked to the perception that the mother does not have sufficient milk. As the child grows, parents add other foods such as gruel enriched with milk, eggs, or carrots. The gruel may or may not include sugar. The quality of the gruel given to the child in addition to breastmilk is more or less dependent on the means available.

Children older than ten months share meals with the family, but they are not allowed to eat vegetables, fish, or other meats. Vegetables such as carrots, cabbages, and tomatoes are readily available in the program area, but they are rarely eaten. Almost all of these vegetables are sold as a cash crop.

Generally speaking, women know that pregnant and breastfeeding women must eat

more than usual. However, because of the great fear of child birth, they reduce the quantity and the frequency of their food intake. As a consequence, weight gain of pregnant women is reduced. Women who practice breastfeeding usually lose even more weight.



Photograph by Bill Leedom/CCF

A qualitative community study in Senegal revealed that older, more experienced women, or "grandmothers," play a predominant role in health promotion and illness management.

The women in the project area continue to work as hard or harder during pregnancy and breastfeeding as before pregnancy. Family expectations and the amount of work required of women allow them little time to devote to frequent and long breastfeeding. As stated in the project's detailed implementation plan, "[the women] would want nevertheless to rest but there isn't anyone to help them in their house chores."

These traditions—those around infant feeding and care of pregnant and nursing mothers—are the ones that the CANAH Project aimed to change through working with grandmothers.

Community sessions with grandmothers

The grandmother health education strategy has two components. First, there is a series of four group sessions that are organized with all the grandmothers in each village. The community leaders and community motivators from the village also attend these sessions so that they are informed about the issues discussed and can provide followup support and encouragement to the grandmothers after the sessions. The motivators are primarily CCF fieldworkers, although health center nurses are also involved to a lesser extent.

¹ Because this information was gathered through qualitative research, no percentages are available.

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Each session deals with a priority topic related either to women's nutrition or nutrition for young children. Topics include the workload and diet of pregnant women, breastfeeding, the diet of breastfeeding women, and complementary feeding of young children.

A second component of the strategy involves following up on and reinforcing the nutrition topics discussed in the grandmother sessions within families and at the community level. This is the responsibility of the community motivators, the community leaders, and the grandmother leaders. The community health committees work with CCF field staff to ensure that these topics are brought up and discussed.

Songs, stories, discussion, . . . and dancing

Each session with grandmothers involves the use of songs, stories without an ending, and group discussion.

The sessions start with singing several short songs that praise the grandmothers for the important role they play in the family and community. The songs of praise are used to encourage the grandmothers to participate and to learn. Here is an example of one of them:

In Praise of Grandmother

Dearest Grandmother, dearest Grandmother
You are such a wonderful person, such a
wonderful person
Dearest Grandmother, dearest Grandmother
Your heart is large and compassionate
Dearest Grandmother, dearest Grandmother
May God grant you a long life.

The grandmothers reacted very positively to songs about them and their role in society. "This song touches us deep within our hearts," said one grandmother. "The words in the song give us new wings to fly with. It encourages us to do even more to care for our grandchildren and families."

The stories without an ending reflect villagers' daily lives and describe both traditional and new ideas about various nutrition topics such as breastfeeding. During the group sessions

there is lively discussion among the grandmothers themselves dealing with the different ideas presented in the story. After the sessions the discussion continues, as others within the community search for a solution to the problem described in the story. For example, following the presentation of the story about women working too much during pregnancy, extended families discussed how they could redistribute domestic tasks among women in the household in order to decrease the pregnant woman's workload. During the subsequent sessions the grandmothers talked about household and community discussions and the solutions that had been proposed.

The grandmothers were extremely enthusiastic about attending the sessions and participating in the discussions. In most villages all of the grandmothers have attended each of the sessions. At the end of most sessions the grandmothers jump to their feet to dance to the closing songs. This reflects their satisfaction with the fact that the health/development workers have included and encouraged them.

Integrating traditional and new ideas

Initially, many people doubted the ability of the grandmothers to learn and to integrate new ideas about MCH into their everyday advice and practices. However, in all villages where the strategy was implemented, grandmothers demonstrated their interest in the new ideas, their ability to learn, and subsequently their ability to change their advice and practices. The changes in grandmothers' knowledge and practices were documented through several types of project evaluation. Please see the comparison of advice on workloads and nutrition given by grandmothers and the practices of younger women in Figure II.

In follow-up interviews with grandmothers they often said something along the lines of, "The world is changing and we want to change so that we can do a good job promoting the well-being of our families and communities."

The feedback from younger women about the changes they have observed in the attitudes and advice of the older women in their families

Photograph by Bill Leedom/CCF



"Since the grandmother activities began," explains a traditional birth attendant, "we have learned that one reason why many women have difficulty during delivery is because they are too weak. Now all of us (the grandmothers) are encouraging pregnant women to decrease their workload and to eat more and better than usual."

is quite amazing. In all of the villages they give specific examples of these changes. Virtually all of the younger women state that grandmothers now advise them to exclusively breastfeed, to decrease their workload during pregnancy, to eat more and better when they are pregnant and breastfeeding, and to prepare enriched porridges for their infants using local foods when they begin complementary feeding at five months of age.²

Synergy between different community actors involved in promoting maternal and child health

In all of the villages there is an informal communication network that links key community actors. In the grandmother education activities, the main focus is on reinforcing the knowledge and advice given by grandmothers. However, the strategy also

involves other influential community actors directly or indirectly, such as community leaders, community health volunteers, village health committee members, and husbands. Key male community leaders and health volunteers attend the grandmother sessions and are responsible for encouraging both grandmothers and other community members, including husbands, to continue discussion of the stories in order to identify solutions to the problems described in them. This approach seeks to ensure that all of these influential community actors share the same point of view on the priority MCH topics, and that the information circulated through the informal communication network reflects a consensus opinion. In this way a synergistic effect is created between them; they are all promoting the same improved MCH practices.

Evidence of changes in community norms

In African cultures, individual behavior related to health or other aspects of life is strongly influenced by sociocultural and community norms. However, traditional health education programs focus on promoting individual behavior change in women of reproductive age, rather than looking at the community.

The goal of the health education strategy developed by CANAH is to promote changes in community norms related to nutritional practices. This is done by working with those community members who are responsible for defining and promoting such norms—the grandmothers. According to both the grandmothers themselves and others in the community, norms related to the priority nutrition issues addressed in the strategy are in the process of changing. Both community members and CANAH staff report that they have observed positive outcomes in both infants and women's health. They attribute these outcomes to changes in the grandmothers' advice and, in turn, to changes in younger women's practices.

The following statement by a traditional birth attendant resonates with numerous testimonials from community actors in project-supported villages.

² MOH policy in Senegal changed to six months of age after the project was well under way. In the extension phase the advice on exclusive breastfeeding has been changed to six months.

CONNECTIONS

Before, when women were pregnant, we made them work extra hard and we told them not to eat too much. We were afraid that if they ate too much, they would gain too much weight, the baby would be too big, and that would make the delivery difficult. Since the grandmother activities began, we have learned that one reason why many women have difficulty during delivery is because they are too weak. Now, all of us (the grandmothers) are encouraging pregnant women to decrease their workload and to eat more and better than usual. The last women who have given birth in the village didn't have any problems because they were strong. Their babies weighed more at birth and they have been in better health since birth. Also, now we put the baby to the breast right after birth and give only breast milk for four months. There have been some important changes in our village since the grandmother activities started here.

Demonstrating Results

Figures I and II show grandmothers' knowledge and advice given to pregnant women and mothers before the CANAH grandmother intervention and the changes in their advice after the intervention. These changes are

compared with women's practices in villages with and without the grandmother strategy.

To assess the effects of the grandmother nutrition education strategy, two types of quantitative data were collected. First, short individual interviews were conducted with grandmothers, both before the activities began and one year later on nine key maternal and child health concepts that were discussed in the grandmother sessions. A total of 134 grandmothers were interviewed in the pretest and 150 were interviewed in the posttest. The women were chosen through a purposive sample. The pre- and posttests assessed their knowledge and the advice they give on, for example, pregnant women's diet, breastfeeding, and complementary feeding. For all nine interview questions, the post-test results showed very significant changes in grandmothers' knowledge and attitudes. For example, prior to the health education activities, only 20 percent of the grandmothers advised pregnant women to decrease their work load, whereas after one year, 87 percent of the grandmothers said they give this advice to pregnant women. Between the pre- and posttest, grandmothers' support for exclusive breastfeeding increased from 29 percent to 93 percent. It is very important to point out that all

Figure I: Grandmother knowledge and advice

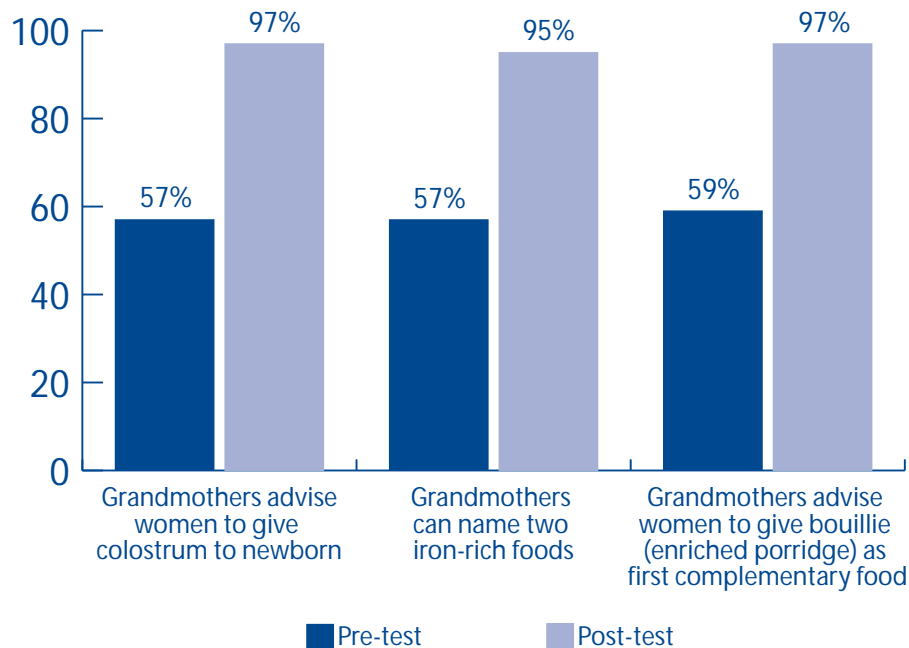
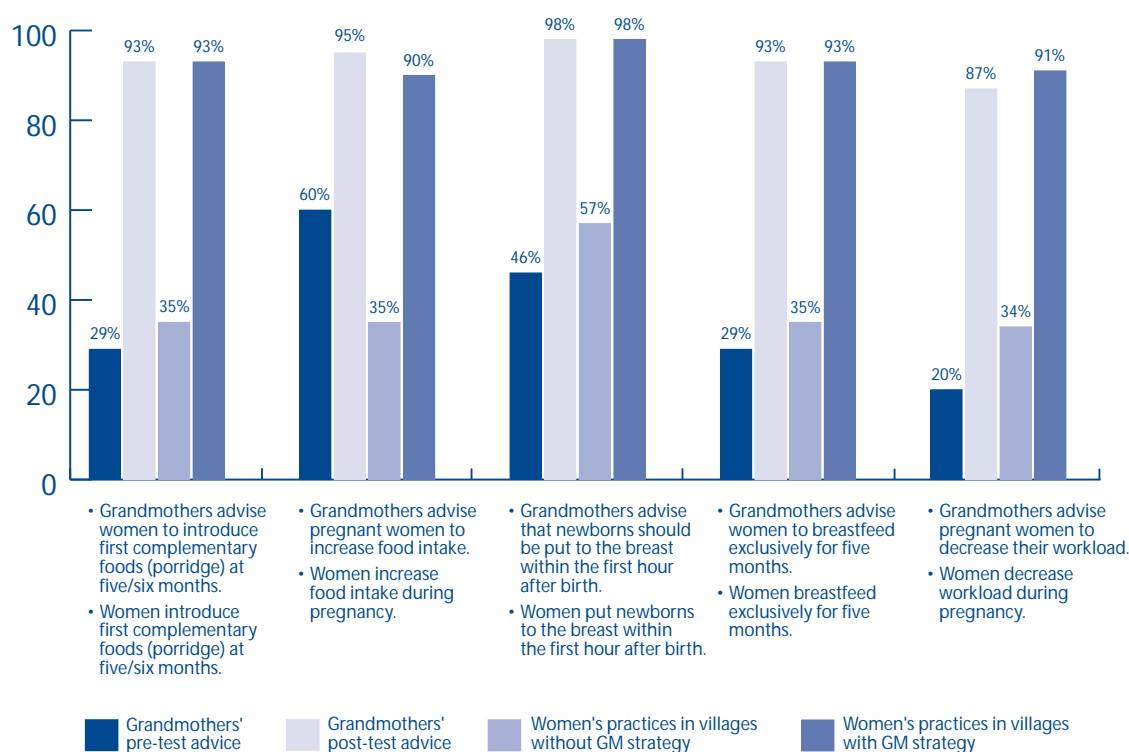


Figure II: Grandmother advice compared to women's practices



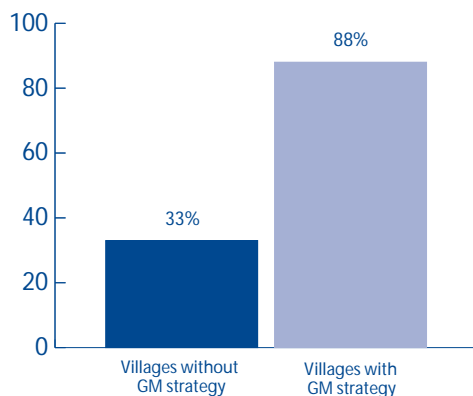
of the qualitative data collected before, during, and at the end of the first year of the strategy reflect the same trends in grandmothers' knowledge and advice.

A second set of quantitative data was collected through a survey of 200 women of reproductive age, 100 in villages with the grandmother strategy and 100 in villages without this strategy. The women were chosen through a purposive sample. All 200 women had given birth during the past 12 months, meaning that they had all been pregnant during the time the grandmother strategy was being implemented. It is also important to point out that in the villages without the grandmother strategy, health and nutrition education activities were carried out with the women of reproductive age. In other words, in those villages, women of reproductive age were involved in educational activities, but the grandmothers were not. As with the data from the pre- and posttests with the grandmothers, the survey with women of reproductive age showed significant changes between program and control villages in women's reported

practices during pregnancy and with their infants on all parameters assessed. For example, in villages with the grandmother strategy, 91 percent of the women said that they decreased their work load during the last pregnancy, whereas in the villages without the strategy, only 34 percent said that they were able to decrease their work load. Again, all of the qualitative data reflect the changes suggested by the quantitative data.

Comparing the quantitative survey results from the women of reproductive age with the pre- and posttest results from grandmothers for the same variable, there are considerable similarities between the advice of grandmothers after one year (posttest data) and the practices of women in villages with the grandmother strategy. Combining the two sets of results suggests that the grandmother health education strategy had a significant and positive effect on grandmothers' attitudes, that grandmothers modified their advice to pregnant and breastfeeding women, and that the younger women changed their practices as a consequence. These data provide further

Figure III: Grandmothers provide special foods for pregnant women



support for the findings of the initial qualitative community study, which showed that younger women's practices related to health and nutrition are strongly influenced by the opinions and advice of grandmothers.

The overall results of the grandmother nutrition education strategy have important implications for future mother-and-child health programs. These results suggest that if programs can promote changes in grandmothers' knowledge and attitudes on health issues in societies where grandmothers play an influential role in these matters, those changes will in turn influence the advice they give to younger women. The younger women will then be inclined to modify their practices based on the revised advice. Conversely, these results suggest that if grandmothers' advice on health and nutrition does not agree with the advice given by health workers, in many cases, younger women will not be able to put health workers' advice into practice.

Expansion of the grandmother strategy

Based on the very positive results of the grandmother pilot project, including the favorable feedback from community members, CANAH and its MOH partners have now expanded the grandmother strategy to all of the villages supported by the project. Both the CCF/CANAH team and community leaders strongly support the strategy in-so-far as it reinforces human resources within the community and contributes to improving health practices, especially in light of the approach's prospects of creating sustained change. ●

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For More Information

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